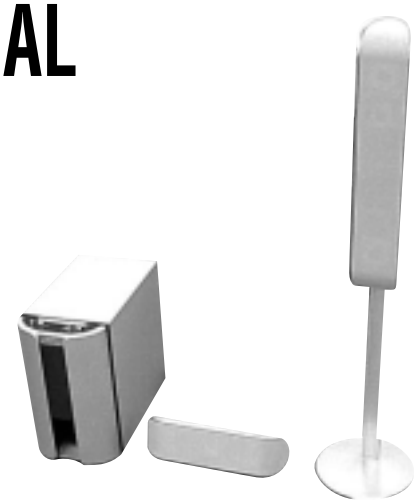
SA-SC8/WS8/SS-CT8/TS8

SERVICE MANUAL

Ver. 1.3 2004. 12

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model



SA-WS8 SS-CT8 SS-TS8

- SA-SC8 is the speaker section in DAV-FC9/SC8.

- SA-SC8 is composed of following models.

SA-SC8	
FRONT and SURROUND speakers	SS-TS8
CENTER speaker	SS-CT8
SUBWOOFER	SA-WS8

SPECIFICATIONS

Front/Surround

Speaker system	Bass reflex
Speaker unit	70 mm dia. cone type × 2, 25 mm dia. balance dome
Rated impedance	4 ohms
Dimensions (approx.)	250 × 1196 × 250 mm (w/h/d, Max size with the stand) 250 × 646 × 250 mm (w/h/d, Min size with the stand)
Mass (approx.)	3.62 kg

Centre

Speaker system	Bass reflex
Speaker unit	70 mm dia. cone type × 2, 25 mm dia. balance dome
Rated impedance	4 ohms
Dimensions (approx.)	379 × 125 × 85 mm (w/h/d, with the stand)
Mass (approx.)	1.07 kg

Subwoofer

Speaker system	Active subwoofer, Magnetically shielded
Speaker unit	20 cm dia. cone type
Enclosure type	Advanced SAW type

Amplifier section
Continuous RMS power output
EXCEPT US and Canadian models:
135 W (8 ohms, 20 Hz -20 kHz, 10% THD)
US and Canadian models: 150 W (6 ohms, 20 Hz – 20kHz, 10% THD)
Power requirements
US and Canadian models: 120 V AC, 60 Hz
Australian and Asian models:
220 – 240 V AC, 50/60 Hz
Taiwan model: 120 V AC, 50/60 Hz
Other models: 110 – 120 V/220 – 240 V AC, 50/60 Hz

Power consumption	90 W, 1 W (standby mode)
Dimensions (approx.)	230 390 475 mm (w/h/d) incl. front grille
Mass (approx.)	14.5 kg

Design and specifications are subject to change without notice.

SUBWOOFER/SPEAKER SYSYTEM

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Audio Group
Published by Sony Engineering Corporation

SONY®

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

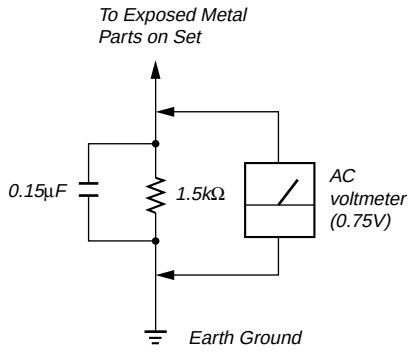


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

TABLE OF CONTENTS

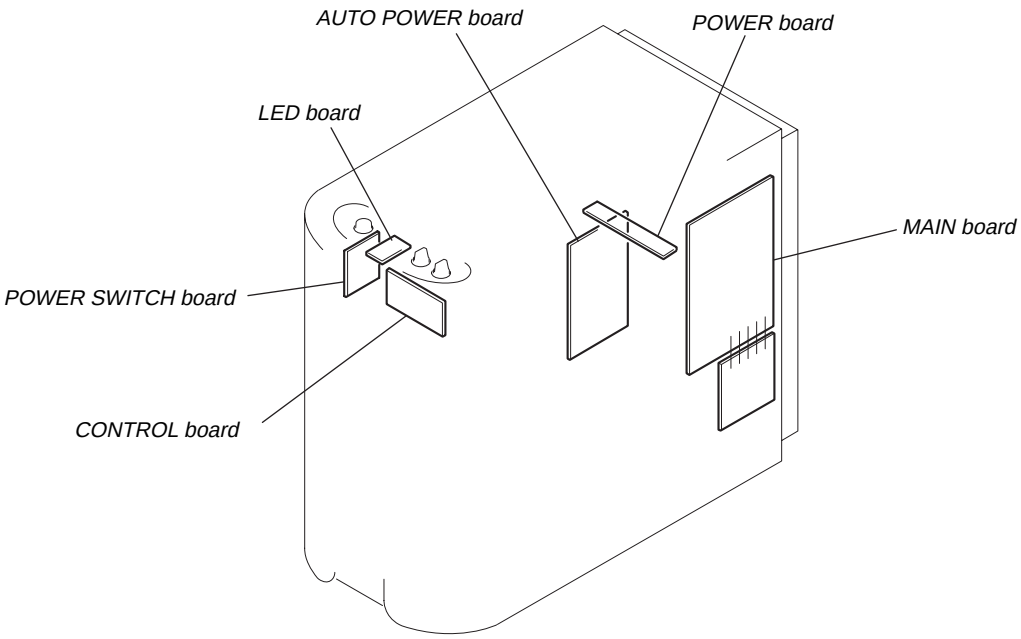
1. DIAGRAMS
1-1. CIRCUIT BOARDS LOCATION (SA-WS8) 3
1-2. PRINTED WIRING BOARDS (SA-WS8) 5
1-3. SCHEMATIC DIAGRAM (SA-WS8) 6

2. EXPLODED VIEWS
2-1. SS-CT8 (OVER ALL SECTION) 7
2-2. SS-TS8 (OVERALL SECTION) 8
2-3. SS-TS8 (STAND SECTION) 9
2-4. SA-WS8 (OVERALL SECTION) 10
2-5. SA-WS8 (AMP SECTION) 11

3. ELECTRICAL PARTS LIST 12

SECTION 1
DIAGRAMS

1-1. CIRCUIT BOARDS LOCATION (SA-WS8)



Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- : B+ Line.
- : B– Line.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : AUDIO
- Abbreviation
  CND : Canadian model.

Note on Printed Wiring Boards:

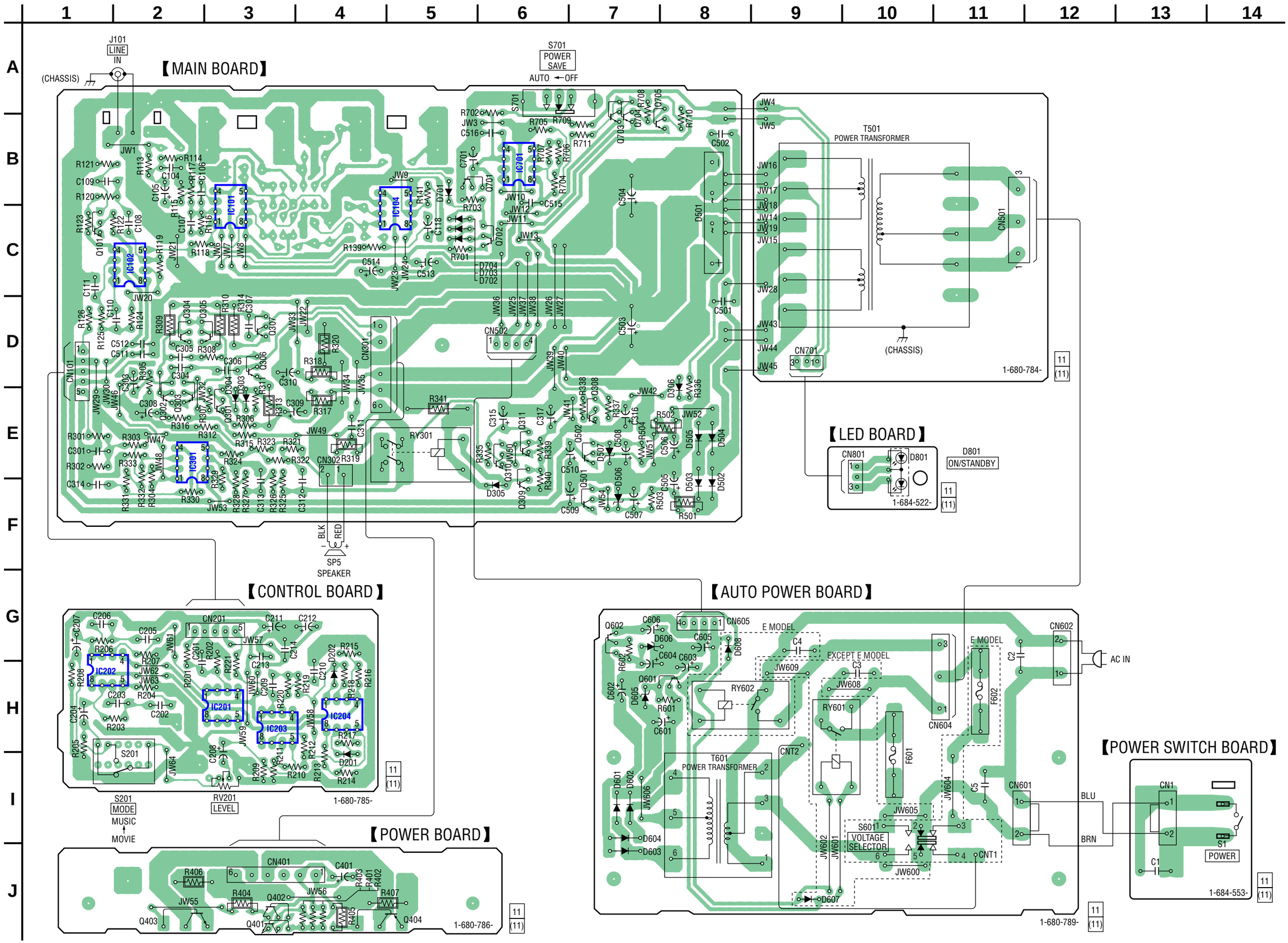
- : parts extracted from the component side.
- : Pattern from the side which enables seeing.

- **Semiconductor Location**

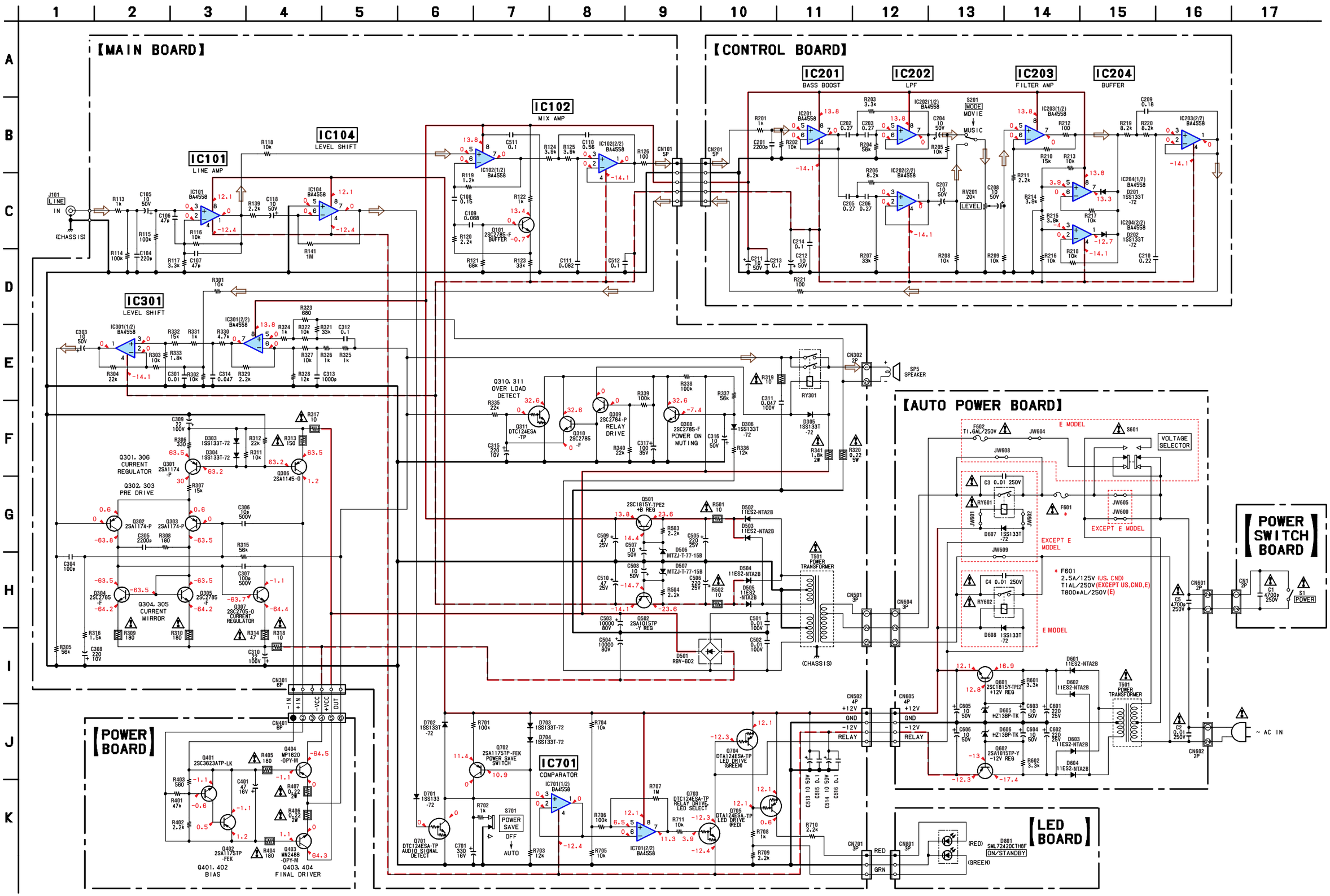
Ref. No.	Location
D201	I-4
D202	H-4
D303	E-3
D304	E-3
D305	F-6
D306	D-8
D501	C-8
D502	E-8
D503	E-8
D504	E-8
D505	E-8
D506	F-7
D507	E-7
D601	I-7
D602	I-7
D603	J-7
D604	I-7
D605	H-7
D606	G-7
(D607)	J-9
<D608>	G-8
D701	B-5
D702	C-5
D703	C-5
D704	C-5
D801	E-10
IC101	C-3
IC102	C-2
IC104	C-5
IC201	H-3
IC202	H-1
IC203	H-3
IC204	H-4
IC301	E-2
IC701	B-6
Q101	C-1
Q301	E-3
Q302	E-2
Q303	E-2
Q304	D-2
Q305	D-3
Q306	D-3
Q307	D-3
Q308	E-7
Q309	F-6
Q310	E-6
Q311	E-6
Q401	J-3
Q402	J-3
Q403	J-2
Q404	J-5
Q501	F-7
Q502	E-7
Q601	H-7
Q602	G-7
Q701	B-5
Q702	C-6
Q703	A-7
Q704	A-7
Q705	A-7

( ) : Except E model
< > : E model

1-2. PRINTED WIRING BOARDS (SA-WS8) • Refer to page 3 for Circuit Boards Location.



1-3. SCHEMATIC DIAGRAM (SA-WS8)



SECTION 2
EXPLODED VIEWS

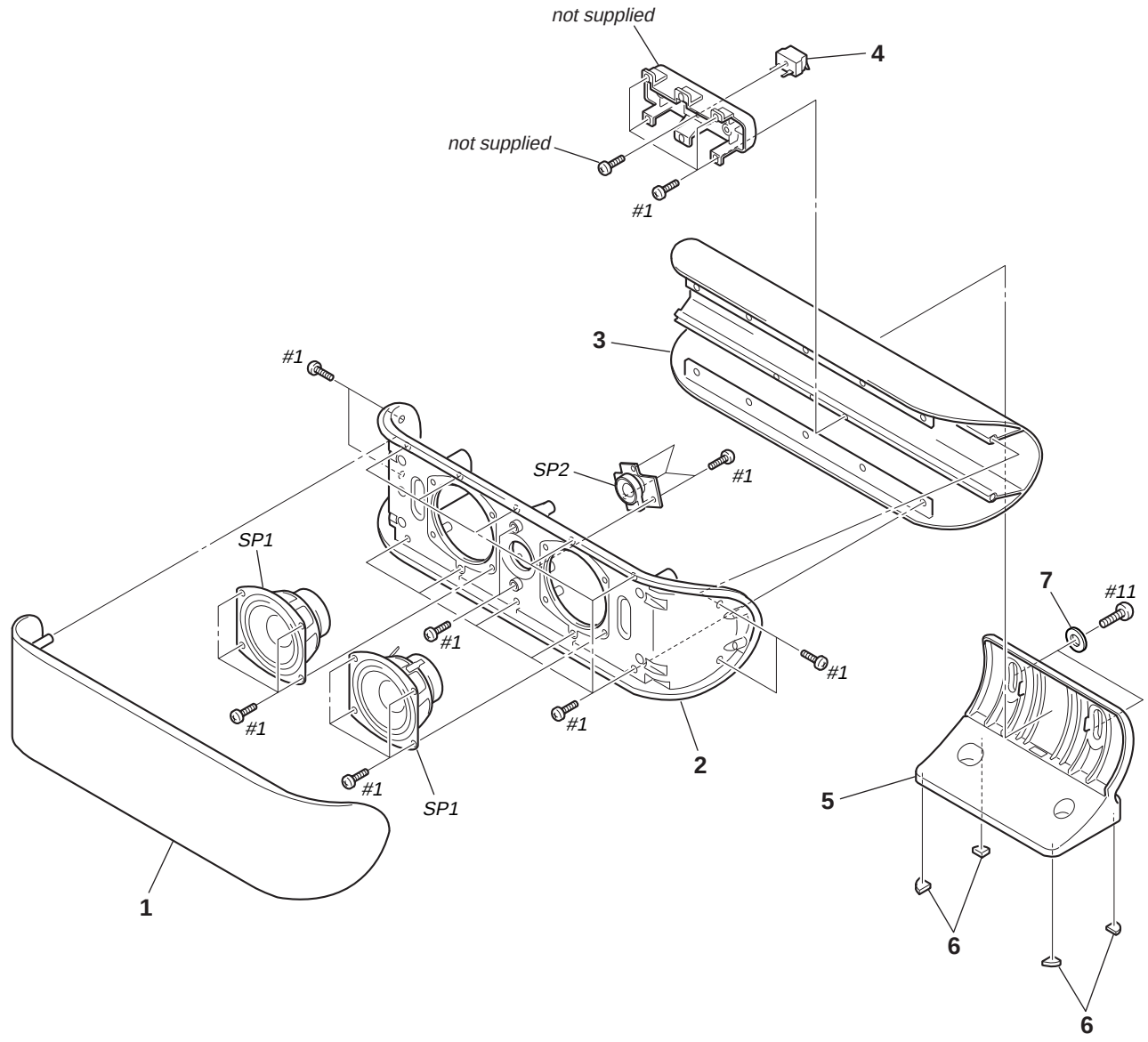
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Abbreviation
  AUS : Australian model
  CND : Canadian model
  EA : Saudi Arabia model
  RU : Russian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

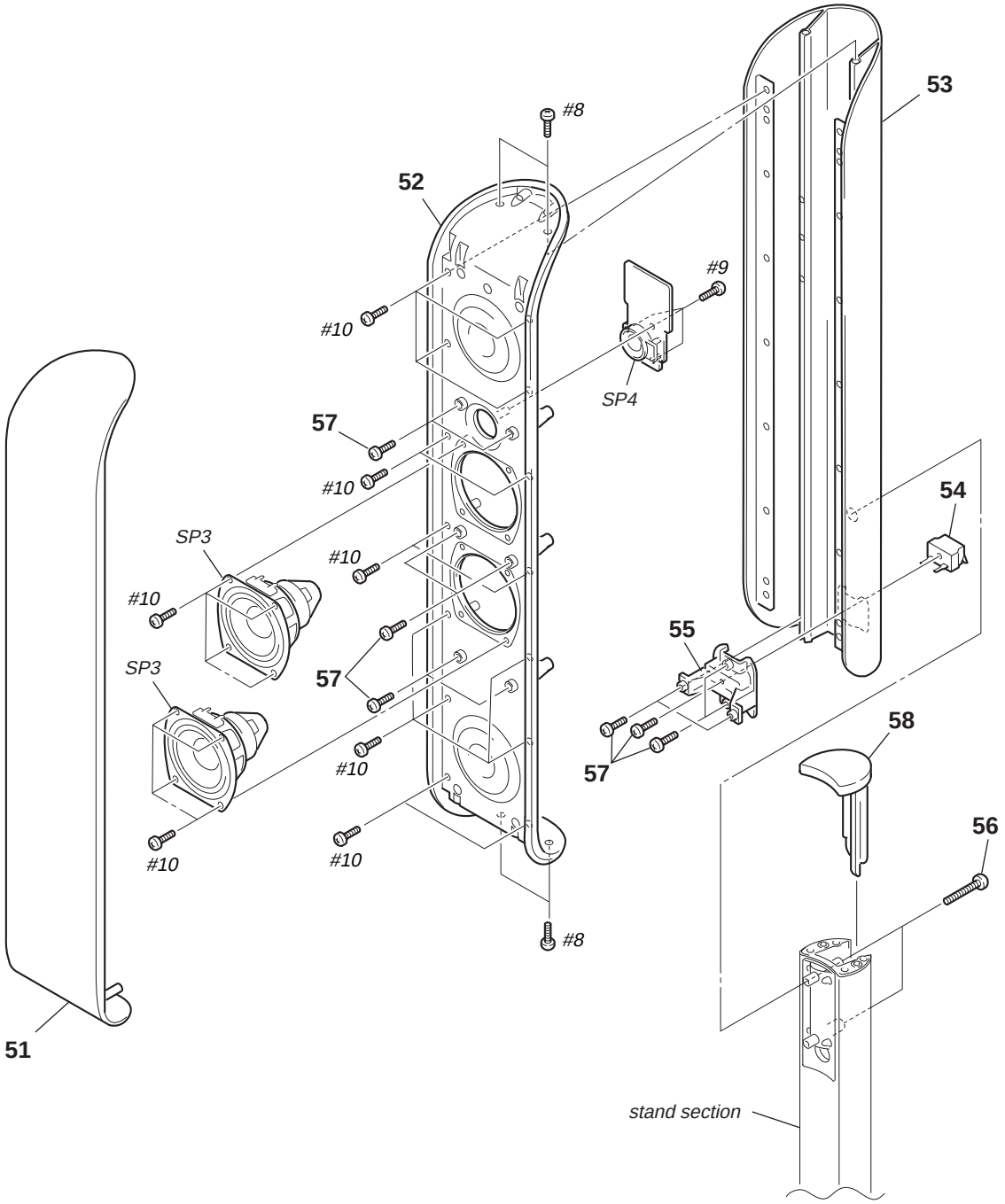
2-1. SS-CT8 (OVER ALL SECTION)



Ref. No.	Part No.	Description	Remark
1	X-4955-909-1	FRAME ASSY, GRILLE (EXCEPT AEP, UK)	
1	X-4956-030-1	FRAME ASSY, GRILLE (AEP, UK)	
2	4-249-787-01	BUFFLE PANEL(CENTER)	
3	4-249-784-01	SPEAKER CABINET (CT)	
4	1-694-836-11	TERMINAL, SPEAKER	
5	4-249-793-01	STAND (CT)(EXCEPT AEP, UK)	
5	4-251-101-01	STAND (CT)(AEP, UK)	

Ref. No.	Part No.	Description	Remark
6	4-249-141-01	FOOT (CENTER)	
7	4-250-635-01	WASHER	
SP1	1-825-592-11	SPEAKER (7cm)	
SP2	1-825-591-11	SPEAKER (1.5cm)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 TT(B)	
#11	7-682-576-04	SCREW +B 5X12 (AEP, UK)	
#11	7-682-578-04	SCREW +B 5X16 (US, CND, E:EXCEPT MX)	

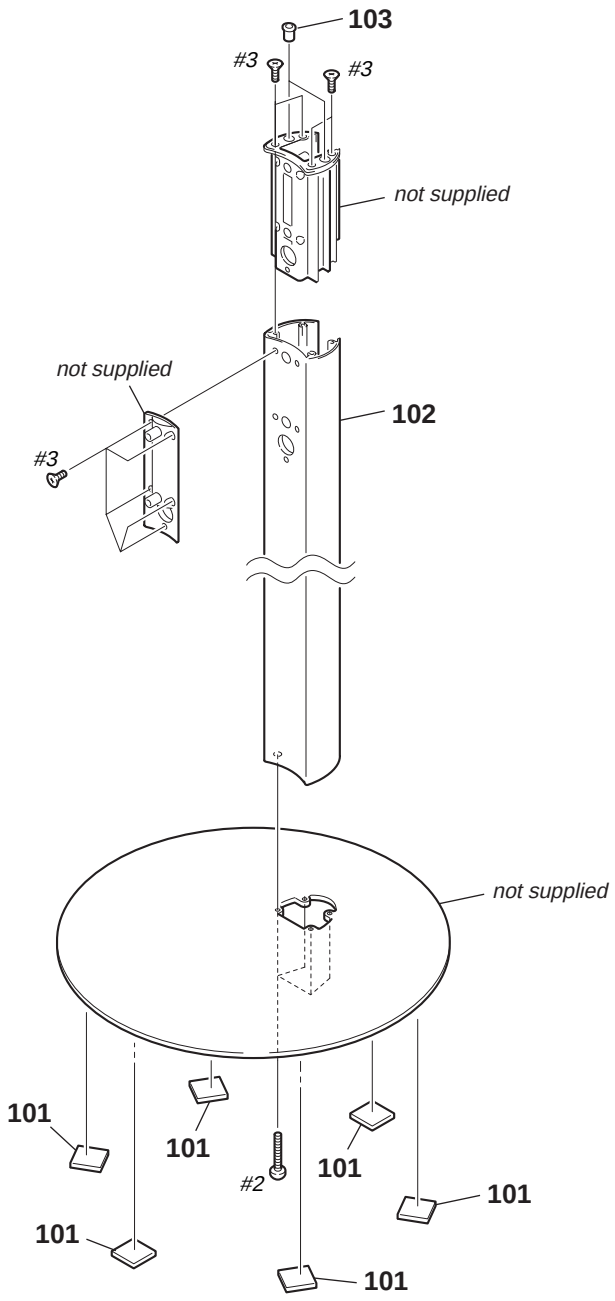
2-2. SS-TS8 (OVERALL SECTION)



Ref. No.	Part No.	Description	Remark
51	X-4955-907-1	FRAME ASSY, GRILLE	
52	4-249-757-01	BUFFLE PANEL(FRONT)	
53	4-249-754-01	SPEAKER CABINET (FR)	
54	1-694-836-11	TERMINAL, SPEAKER	
55	4-249-758-01	TERMINAL BASE (FR)	
56	4-251-125-01	SCREW (M5X35)	
57	4-250-938-01	SCREW 3X10 +PTP	

Ref. No.	Part No.	Description	Remark
58	4-249-768-01	COVER	
SP3	1-825-592-11	SPEAKER (7cm)	
SP4	1-825-591-11	SPEAKER (1.5cm)	
#8	7-685-548-19	SCREW +BTP 3X12 TYPE2 N-S	
#9	7-685-535-14	SCREW +BTP 2.6X10 TYPE2 N-S	
#10	7-685-547-19	SCREW +BTP 3X10 TYPE2 N-S	

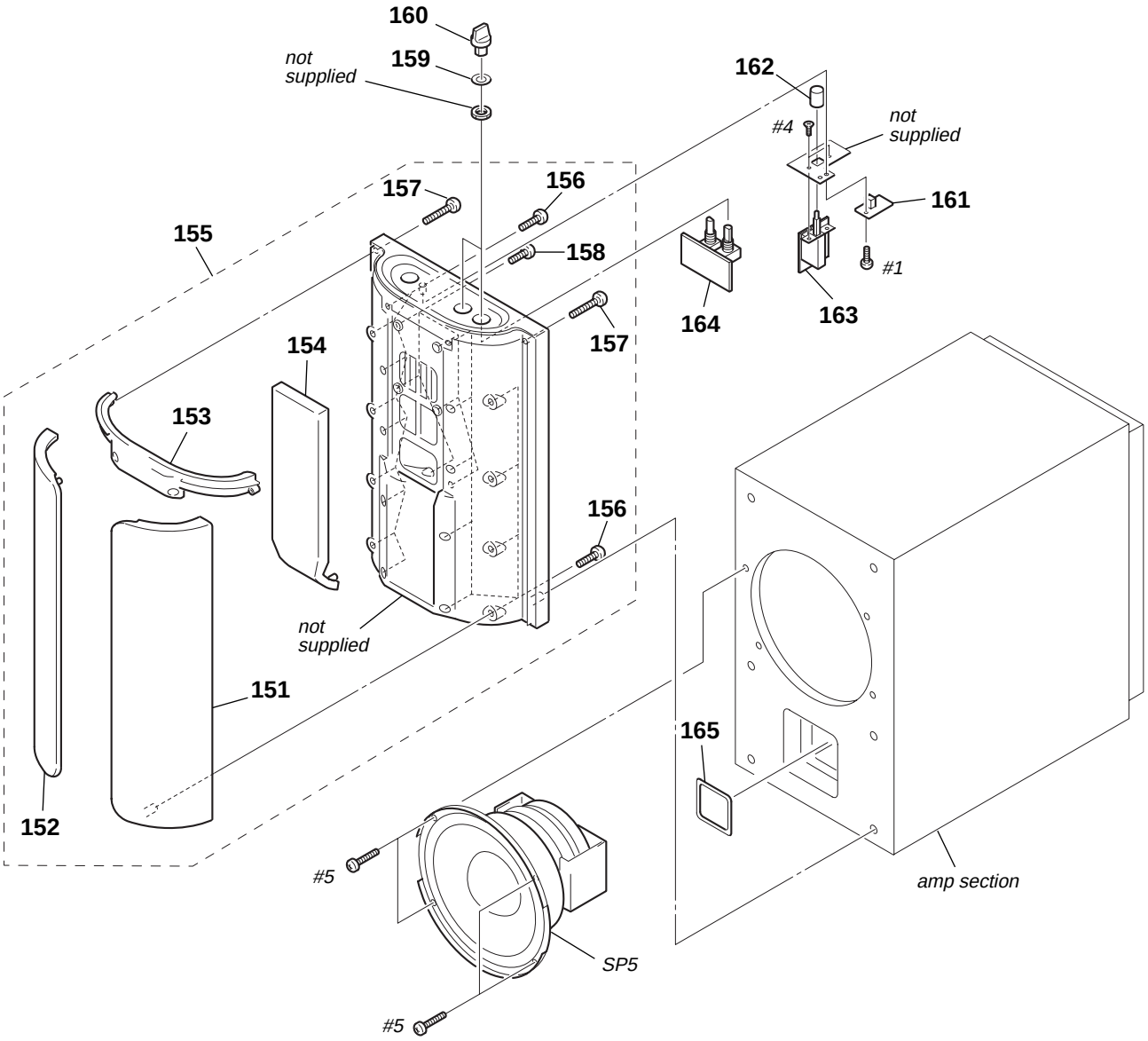
2-3. SS-TS8 (STAND SECTION)



Ref. No.	Part No.	Description	Remark
101	4-246-659-01	FOOT (STAND)	
102	4-249-764-01	POLE	
103	4-249-769-01	CATCHER	

Ref. No.	Part No.	Description	Remark
#2	7-682-553-09	SCREW +B 3X20	
#3	7-682-247-04	SCREW +K 3X6	

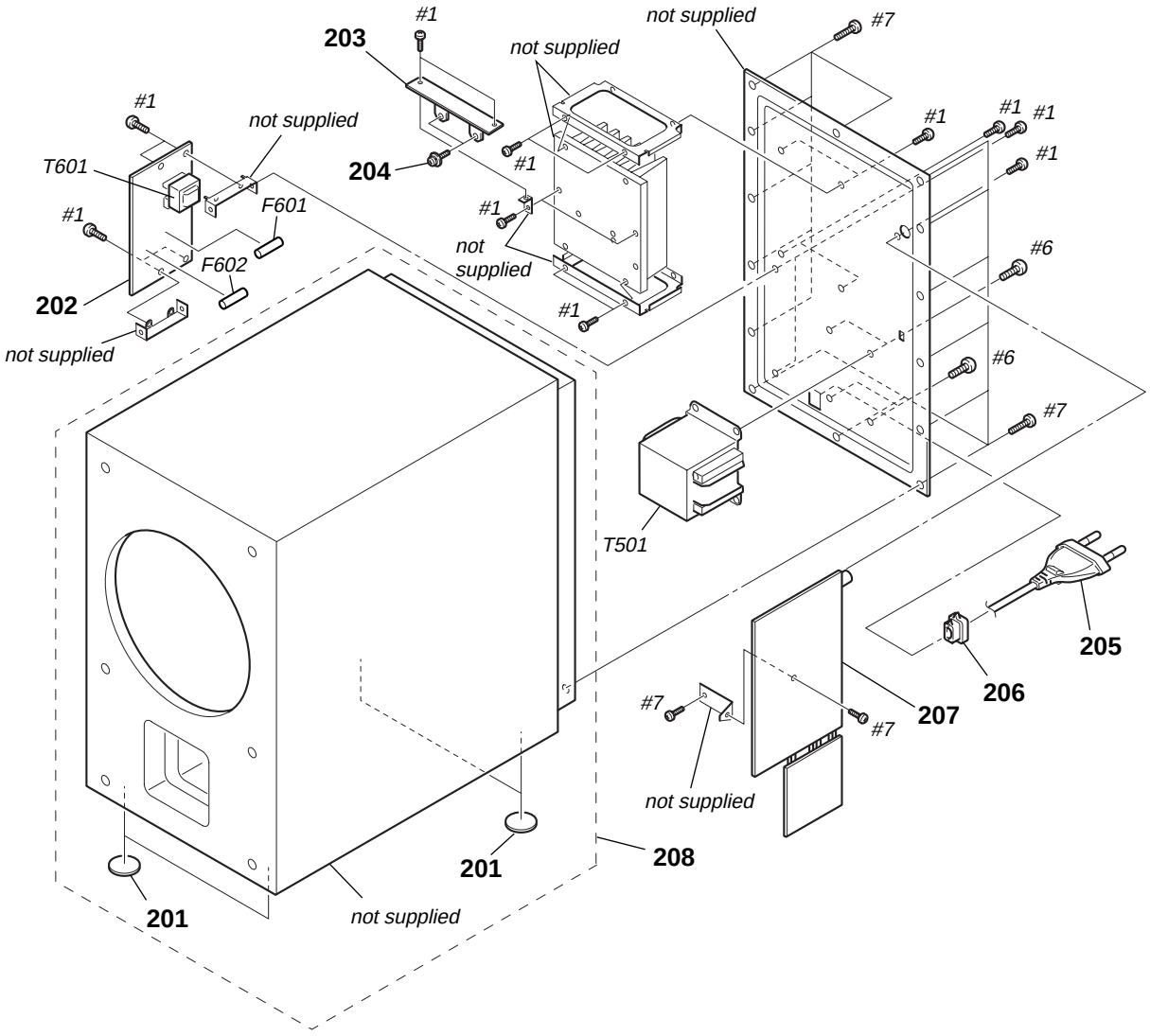
2-4. SA-WS8 (OVERALL SECTION)



Ref. No.	Part No.	Description	Remark
151	4-250-555-01	PANEL (R), ORNAMENTAL	
152	4-250-554-01	PANEL (L), ORNAMENTAL	
153	4-250-556-01	PANEL (T), ORNAMENTAL	
154	X-4955-975-1	FRAME ASSY, GRILLE	
155	X-4955-974-1	PANEL ASSY, FRONT	
156	4-874-614-21	SCREW (1)(3.5X14), TAPPING	
157	4-874-614-51	SCREW (1)(3.5X20), TAPPING	
158	4-874-614-71	SCREW	
159	4-227-298-01	SHEET	
160	4-250-551-01	KNOB (VOL)	

Ref. No.	Part No.	Description	Remark
161	1-684-552-11	LED BOARD	
162	4-250-552-01	KNOB, PUSH	
163	1-684-553-11	POWER SWITCH BOARD	
164	1-680-785-11	CONTROL BOARD	
165	4-231-866-01	PACKING	
SP5	1-529-296-11	SPEAKER (20cm)(EXCEPT US, CND)	
SP5	1-825-151-11	SPEAKER (20cm)(US, CND)	
#1	7-685-647-79	SCREW +P 3X10 TYPE2 NON-SLIT	
#4	7-682-546-04	SCREW +P 3X5	
#5	7-685-664-79	SCREW +P 4X20 TYPE1	

2-5. SA-WS8 (AMP SECTION)



Ref. No.	Part No.	Description	Remark
201	4-235-237-01	FOOT	
202	1-680-789-11	AUTO POWER BOARD	
203	1-680-786-11	POWER BOARD	
204	3-905-609-01	SCREW (TRANSISTOR)	
⚠205	1-696-570-21	CORD, POWER (UK)	
⚠205	1-696-845-31	CORD, POWER (AUS)	
⚠205	1-769-744-52	CORD, POWER (AEP, E , EA, RU)	
⚠205	1-783-531-11	CORD, POWER (US, CND)	
* 206	3-703-244-00	BUSHING (2104), CORD	
207	A-4747-847-A	MAIN BOARD, COMPLETE	
208	A-4713-147-A	CABINET ASSY, SPEAKER (US, CND)	
208	A-4741-412-A	CABINET ASSY, SPEAKER (EXCEPT US, CND)	
⚠F601	1-532-463-31	FUSE (T1AL/250V)(EXCEPT US, CND, E)	
⚠F601	1-532-501-31	FUSE (T0.8AL/250V)(E)	
⚠F601	1-533-418-11	FUSE, GLASS CYLINDRICAL(DIA.5) (2.5A/125V)(US, CND)	

Ref. No.	Part No.	Description	Remark
⚠F602	1-532-503-31	FUSE (T1.6AL/250V)(E)	
⚠T501	1-435-999-11	TRANSFORMER, POWER (US, CND)	
⚠T501	1-437-219-12	TRANSFORMER, POWER (E)	
⚠T501	1-437-246-11	TRANSFORMER, POWER (EXCEPT US, CND, E)	
⚠T601	1-435-993-11	TRANSFORMER, POWER (US, CND)	
⚠T601	1-435-994-11	TRANSFORMER, POWER (EXCEPT US, CND, E)	
⚠T601	1-435-995-11	TRANSFORMER, POWER (E)	
#1	7-685-647-79	SCREW +P 3X10 TYPE2 NON-SLIT	
#6	7-685-660-19	SCREW +BVTP 4X10 TYPE2 N-S	
#7	7-685-663-79	SCREW +BVTP 4X16 TYPE2 N-S	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AUTO POWER CONTROL

SECTION 3
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

- Abbreviation
  AUS : Australian model
  CND : Canadian model
  EA : Sudi Arabia model
  RU : Russian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
	1-680-789-11	AUTO POWER BOARD			
		**********			
	1-533-217-11	FUSE HOLDER			
		< CAPACITOR >			
⚠C2	1-113-925-11	CERAMIC	0.01uF	20.00% 250V	
⚠C3	1-113-925-11	CERAMIC	0.01uF	20.00% 250V	(EXCEPT E)
⚠C4	1-113-925-11	CERAMIC	0.01uF	20.00% 250V	(E)
⚠C5	1-113-924-11	CERAMIC	0.0047uF	20.00% 250V	
C601	1-104-666-11	ELECT	220uF	20.00% 25V	
C602	1-104-666-11	ELECT	220uF	20.00% 25V	
C603	1-126-964-11	ELECT	10uF	20.00% 50V	
C604	1-126-964-11	ELECT	10uF	20.00% 50V	
C605	1-126-964-11	ELECT	10uF	20.00% 50V	
C606	1-126-964-11	ELECT	10uF	20.00% 50V	
		< CONNECTOR >			
* CN601	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
CN602	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
* CN604	1-564-687-11	PIN, CONNECTOR (3.96mm PITCH) 3P			
CN605	1-564-507-11	PLUG, CONNECTOR 4P			
		< DIODE >			
D601	8-719-024-99	DIODE 11ES2-NTA2B			
D602	8-719-024-99	DIODE 11ES2-NTA2B			
D603	8-719-024-99	DIODE 11ES2-NTA2B			
D604	8-719-024-99	DIODE 11ES2-NTA2B			
D605	8-719-068-42	DIODE HZ13BP-TK			
D606	8-719-068-42	DIODE HZ13BP-TK			
D607	8-719-991-33	DIODE 1SS133T-72 (EXCEPT E)			
D608	8-719-991-33	DIODE 1SS133T-72 (E)			
		< TRANSISTOR >			
Q601	8-729-205-11	TRANSISTOR	2SC1815Y-TPE2		
Q602	8-729-231-13	TRANSISTOR	2SA1015TP-Y		
		< RESISTOR >			
R601	1-247-843-11	CARBON	3.3K	5% 1/4W	
R602	1-247-843-11	CARBON	3.3K	5% 1/4W	
		< RELAY >			
⚠RY601	1-755-458-11	RELAY (EXCEPT E)			
⚠RY602	1-755-458-11	RELAY (E)			

Ref. No.	Part No.	Description			Remarks
		< SWITCH >			
⚠S601	1-771-474-11	SWITCH, POWER (VOLTAGE CHANGE) (VOLTAGE SELECTOR)(E)			
		**********			
	1-680-785-11	CONTROL BOARD			
		**********			
		< CAPACITOR >			
C201	1-130-475-00	MYLAR	0.0022uF	5% 50V	
C202	1-131-697-31	FILM	0.27uF	5% 50V	
C203	1-131-697-31	FILM	0.27uF	5% 50V	
C204	1-126-964-11	ELECT	10uF	20.00% 50V	
C205	1-131-697-31	FILM	0.27uF	5% 50V	
C206	1-131-697-31	FILM	0.27uF	5% 50V	
C207	1-126-964-11	ELECT	10uF	20.00% 50V	
C208	1-126-964-11	ELECT	10uF	20.00% 50V	
C209	1-131-695-11	FILM	0.18uF	5% 50V	
C210	1-131-696-11	FILM	0.22uF	5% 50V	
C211	1-126-964-11	ELECT	10uF	20.00% 50V	
C212	1-126-964-11	ELECT	10uF	20.00% 50V	
C213	1-164-159-21	CERAMIC	0.1uF	50V	
C214	1-164-159-21	CERAMIC	0.1uF	50V	
		< CONNECTOR >			
* CN201	1-564-508-11	PLUG, CONNECTOR 5P			
		< DIODE >			
D201	8-719-991-33	DIODE 1SS133T-77			
D202	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC201	8-759-145-58	IC BA4558			
IC202	8-759-145-58	IC BA4558			
IC203	8-759-145-58	IC BA4558			
IC204	8-759-145-58	IC BA4558			
		< RESISTOR >			
R201	1-249-417-11	CARBON	1K	5% 1/4W	F
R202	1-249-429-11	CARBON	10K	5% 1/4W	
R203	1-247-843-11	CARBON	3.3K	5% 1/4W	
R204	1-249-438-11	CARBON	56K	5% 1/4W	
R205	1-249-429-11	CARBON	10K	5% 1/4W	
R206	1-249-428-11	CARBON	8.2K	5% 1/4W	F

Ref. No.	Part No.	Description			Remarks
R207	1-249-435-11	CARBON	33K	5%	1/4W
R208	1-249-429-11	CARBON	10K	5%	1/4W
R209	1-249-429-11	CARBON	10K	5%	1/4W
R210	1-249-431-11	CARBON	15K	5%	1/4W
R211	1-249-421-11	CARBON	2.2K	5%	1/4W F
R212	1-247-807-31	CARBON	100	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-249-424-11	CARBON	3.9K	5%	1/4W F
R215	1-249-424-11	CARBON	3.9K	5%	1/4W F
R216	1-249-429-11	CARBON	10K	5%	1/4W
R217	1-249-429-11	CARBON	10K	5%	1/4W
R218	1-249-429-11	CARBON	10K	5%	1/4W
R219	1-249-428-11	CARBON	8.2K	5%	1/4W F
R220	1-249-428-11	CARBON	8.2K	5%	1/4W F
R221	1-247-807-31	CARBON	100	5%	1/4W
		< VARIABLE RESISTOR >			
RV201	1-225-826-11	RES, VAR, CARBON 20K (LEVEL)			
		< SWITCH >			
S201	1-771-632-12	SWITCH, ROTARY (MODE)			
**********					
	1-684-552-11	LED BOARD			
		**********			
		< CONNECTOR >			
* CN801	1-564-518-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D801	8-719-061-31	DIODE SML72420CTH8F (ON/STANDBY)			
**********					
	A-4747-847-A	MAIN BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C104	1-162-286-21	CERAMIC	220PF	10.00%	50V
C105	1-126-964-11	ELECT	10uF	20.00%	50V
C106	1-162-215-31	CERAMIC	47PF	5%	50V
C107	1-162-215-31	CERAMIC	47PF	5%	50V
C108	1-131-694-31	FILM	0.15uF	5%	50V
C109	1-131-690-31	FILM	0.068uF	5%	50V
C110	1-131-701-31	FILM	0.56uF	5%	50V
C111	1-131-691-11	FILM	0.082uF	5%	50V
C118	1-126-964-11	ELECT	10uF	20.00%	50V
C301	1-131-679-31	FILM	0.01uF	5%	50V
C303	1-126-964-11	ELECT	10uF	20.00%	50V
C304	1-162-282-31	CERAMIC	100PF	10%	50V
C305	1-162-302-11	CERAMIC	0.0022uF	30.00%	16V
C306	1-101-804-00	CERAMIC	10PF	5.00%	500V
C307	1-101-810-00	CERAMIC	100PF	5.00%	500V
C308	1-126-934-11	ELECT	220uF	20.00%	10V
C309	1-128-560-11	ELECT	22uF	20.00%	100V
C310	1-128-560-11	ELECT	22uF	20.00%	100V
C311	1-117-165-91	FILM	0.047uF	2.00%	100V
C312	1-136-165-00	FILM	0.1uF	5%	50V

Ref. No.	Part No.	Description			Remarks
C313	1-130-471-00	MYLAR	0.001uF	5%	50V
C314	1-131-688-31	FILM	0.047uF	5%	50V
C315	1-126-934-11	ELECT	220uF	20.00%	10V
C316	1-126-964-11	ELECT	10uF	20.00%	50V
C317	1-126-948-11	ELECT	100uF	20.00%	35V
C501	1-117-162-91	FILM	0.01uF	2.00%	100V
C502	1-117-162-91	FILM	0.01uF	2.00%	100V
C503	1-135-782-11	ELECT CHIP	10000uF	20%	80V
C504	1-135-782-11	ELECT CHIP	10000uF	20%	80V
C505	1-104-666-11	ELECT	220uF	20.00%	25V
C506	1-104-666-11	ELECT	220uF	20.00%	25V
C507	1-126-964-11	ELECT	10uF	20.00%	50V
C508	1-126-964-11	ELECT	10uF	20.00%	50V
C509	1-126-947-11	ELECT	47uF	20.00%	25V
C510	1-126-947-11	ELECT	47uF	20.00%	25V
C511	1-164-159-21	CERAMIC	0.1uF		50V
C512	1-164-159-21	CERAMIC	0.1uF		50V
C513	1-126-964-11	ELECT	10uF	20.00%	50V
C514	1-126-964-11	ELECT	10uF	20.00%	50V
C515	1-164-159-21	CERAMIC	0.1uF		50V
C516	1-164-159-21	CERAMIC	0.1uF		50V
C701	1-104-661-91	ELECT	330uF	20.00%	16V
		< CONNECTOR >			
* CN101	1-564-508-11	PLUG, CONNECTOR 5P			
* CN301	1-564-243-11	PIN, CONNECTOR (3.96mm PITCH) 6P			
CN302	1-564-320-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
* CN501	1-564-687-11	PIN, CONNECTOR (3.96mm PITCH) 3P			
CN701	1-564-506-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D303	8-719-991-33	DIODE 1SS133T-72			
D304	8-719-991-33	DIODE 1SS133T-72			
D305	8-719-991-33	DIODE 1SS133T-72			
D306	8-719-991-33	DIODE 1SS133T-72			
D501	8-719-302-37	DIODE RBV-602			
D502	8-719-024-99	DIODE 11ES2-NTA2B			
D503	8-719-024-99	DIODE 11ES2-NTA2B			
D504	8-719-024-99	DIODE 11ES2-NTA2B			
D505	8-719-024-99	DIODE 11ES2-NTA2B			
D506	8-719-110-41	DIODE MTZJ-T-77-15B			
D507	8-719-110-41	DIODE MTZJ-T-77-15B			
D701	8-719-991-33	DIODE 1SS133T-72			
D702	8-719-991-33	DIODE 1SS133T-72			
D703	8-719-991-33	DIODE 1SS133T-72			
D704	8-719-991-33	DIODE 1SS133T-72			
		< IC >			
IC101	8-759-145-58	IC BA4558			
IC102	8-759-145-58	IC BA4558			
IC104	8-759-145-58	IC BA4558			
IC301	8-759-145-58	IC BA4558			
IC701	8-759-145-58	IC BA4558			
		< JACK >			
J101	1-770-377-31	JACK, PIN 1P (LINE)			

MAIN POWER

Ref. No.	Part No.	Description				Remarks
		< TRANSISTOR >				
Q101	8-729-119-78	TRANSISTOR	2SC2785-F			
Q301	8-729-117-41	TRANSISTOR	2SA1174-P			
Q302	8-729-117-41	TRANSISTOR	2SA1174-P			
Q303	8-729-117-41	TRANSISTOR	2SA1174-P			
Q304	8-729-119-78	TRANSISTOR	2SC2785-F			
Q305	8-729-119-78	TRANSISTOR	2SC2785-F			
Q306	8-729-214-51	TRANSISTOR	2SA1145-O			
Q307	8-729-270-51	TRANSISTOR	2SC2705-O			
Q308	8-729-119-78	TRANSISTOR	2SC2785-F			
Q309	8-729-178-41	TRANSISTOR	2SC2784-P			
Q310	8-729-119-78	TRANSISTOR	2SC2785-F			
Q311	8-729-029-86	TRANSISTOR	DTC124ESA-TP			
Q501	8-729-205-11	TRANSISTOR	2SC1815Y-TPE2			
Q502	8-729-231-13	TRANSISTOR	2SA1015TP-Y			
Q701	8-729-029-86	TRANSISTOR	DTC124ESA-TP			
Q702	8-729-119-77	TRANSISTOR	2SA1175TP-FEK			
Q703	8-729-029-86	TRANSISTOR	DTC124ESA-TP			
Q704	8-729-029-40	TRANSISTOR	DTA124ESA-TP			
Q705	8-729-029-40	TRANSISTOR	DTA124ESA-TP			
		< RESISTOR >				
R113	1-249-417-11	CARBON	1K	5%	1/4W	F
R114	1-249-441-11	CARBON	100K	5%	1/4W	
R115	1-249-441-11	CARBON	100K	5%	1/4W	
R116	1-249-429-11	CARBON	10K	5%	1/4W	
R117	1-247-843-11	CARBON	3.3K	5%	1/4W	
R118	1-249-429-11	CARBON	10K	5%	1/4W	
R119	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R120	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R121	1-249-439-11	CARBON	68K	5%	1/4W	
R122	1-249-417-11	CARBON	1K	5%	1/4W	F
R123	1-249-435-11	CARBON	33K	5%	1/4W	
R124	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R125	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R126	1-247-807-31	CARBON	100	5%	1/4W	
R139	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R141	1-247-903-00	CARBON	1M	5%	1/4W	
R301	1-249-429-11	CARBON	10K	5%	1/4W	
R302	1-249-429-11	CARBON	10K	5%	1/4W	
R303	1-249-429-11	CARBON	10K	5%	1/4W	
R304	1-249-433-11	CARBON	22K	5%	1/4W	
R305	1-249-438-11	CARBON	56K	5%	1/4W	
R306	1-249-411-11	CARBON	330	5%	1/4W	
R307	1-249-431-11	CARBON	15K	5%	1/4W	
R308	1-249-408-11	CARBON	180	5%	1/4W	F
⚠R309	1-249-408-11	CARBON	180	5%	1/4W	F
⚠R310	1-249-408-11	CARBON	180	5%	1/4W	F
R311	1-249-429-11	CARBON	10K	5%	1/4W	
R312	1-249-433-11	CARBON	22K	5%	1/4W	
⚠R313	1-249-407-11	CARBON	150	5%	1/4W	F
⚠R314	1-249-401-11	CARBON	47	5%	1/4W	F
R315	1-249-438-11	CARBON	56K	5%	1/4W	
R316	1-249-419-11	CARBON	1.5K	5%	1/4W	F
⚠R317	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R318	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R319	1-249-393-11	CARBON	10	5%	1/4W	F

Ref. No.	Part No.	Description				Remarks
⚠R320	1-217-156-00	METAL	0.22	10%	5W	
R321	1-249-435-11	CARBON	33K	5%	1/4W	
R322	1-249-429-11	CARBON	10K	5%	1/4W	
R323	1-249-415-11	CARBON	680	5%	1/4W	F
R324	1-249-417-11	CARBON	1K	5%	1/4W	F
R325	1-249-417-11	CARBON	1K	5%	1/4W	F
R326	1-249-417-11	CARBON	1K	5%	1/4W	F
R327	1-249-429-11	CARBON	10K	5%	1/4W	
R328	1-249-430-11	CARBON	12K	5%	1/4W	
R329	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R330	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R331	1-249-417-11	CARBON	1K	5%	1/4W	F
R332	1-249-431-11	CARBON	15K	5%	1/4W	
R333	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R335	1-249-433-11	CARBON	22K	5%	1/4W	
R336	1-249-430-11	CARBON	12K	5%	1/4W	
R337	1-249-438-11	CARBON	56K	5%	1/4W	
R338	1-249-441-11	CARBON	100K	5%	1/4W	
R339	1-249-441-11	CARBON	100K	5%	1/4W	
R340	1-249-433-11	CARBON	22K	5%	1/4W	
⚠R341	1-216-458-11	METAL OXIDE	1.8K	5%	2W	
⚠R501	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R502	1-249-393-11	CARBON	10	5%	1/4W	F
R503	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R504	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R701	1-249-441-11	CARBON	100K	5%	1/4W	
R702	1-249-417-11	CARBON	1K	5%	1/4W	F
R703	1-249-430-11	CARBON	12K	5%	1/4W	
R704	1-249-429-11	CARBON	10K	5%	1/4W	
R705	1-249-429-11	CARBON	10K	5%	1/4W	
R706	1-249-441-11	CARBON	100K	5%	1/4W	
R707	1-247-903-00	CARBON	1M	5%	1/4W	
R708	1-249-417-11	CARBON	1K	5%	1/4W	F
R709	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R710	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R711	1-249-429-11	CARBON	10K	5%	1/4W	
		< RELAY >				
RY301	1-515-920-11	RELAY (24V)				
		< SWITCH >				
S701	1-771-188-11	SWITCH, SLIDE (POWER SAVE)				
**********						
	1-680-786-11	POWER BOARD				
		**********				
		< CAPACITOR >				
C401	1-126-947-11	ELECT	47uF	20.00%	16V	
		< CONNECTOR >				
* CN401	1-564-243-11	PIN, CONNECTOR (3.96mm PITCH) 6P				

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Ref. No.	Part No.	Description				Remarks
		< TRANSISTOR >				
Q401	8-729-141-30	TRANSISTOR	2SC3623ATP-LK			
Q402	8-729-119-77	TRANSISTOR	2SA1175TP-FEK			
Q403	8-749-010-25	IC MN2488-OPY-M				
Q404	8-749-010-26	IC MP1620-OPY-M				
		< RESISTOR >				
R401	1-249-437-11	CARBON	47K	5%	1/4W	
R402	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R403	1-249-414-11	CARBON	560	5%	1/4W	F
⚠R404	1-249-408-11	CARBON	180	5%	1/4W	F
⚠R405	1-249-408-11	CARBON	180	5%	1/4W	F
⚠R406	1-217-151-00	METAL	0.22	10%	2W	
⚠R407	1-217-151-00	METAL	0.22	10%	2W	
**********						
	1-684-553-11	POWER SWITCH BOARD				
		**********				
		< CAPACITOR >				
⚠C1	1-113-924-11	CERAMIC	0.0047uF	20.00%	250V	
		< CONNECTOR >				
CN1	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P				
		< SWITCH >				
⚠S1	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)(POWER)				
**********						
		MISCELLANEOUS				
		**********				
4	1-694-836-11	TERMINAL, SPEAKER				
54	1-694-836-11	TERMINAL, SPEAKER				
⚠205	1-696-570-21	CORD, POWER (UK)				
⚠205	1-696-845-31	CORD, POWER (AUS)				
⚠205	1-769-744-52	CORD, POWER (AEP, E , EA, RU)				
⚠205	1-783-531-11	CORD, POWER (US, CND)				
⚠F601	1-532-463-31	FUSE (T1AL/250V)(EXCEPT US, CND, E)				
⚠F601	1-532-501-31	FUSE (T0.8AL/250V)(E)				
⚠F601	1-533-418-11	FUSE, GLASS CYLINDRICAL(DIA.5) (2.5A/250V)(US, CND)				
⚠F602	1-532-503-31	FUSE (T1.6AL/250V)(E)				
SP1	1-825-592-11	SPEAKER (7cm)				
SP2	1-825-591-11	SPEAKER (1.5cm)				
SP3	1-825-592-11	SPEAKER (7cm)				
SP4	1-825-591-11	SPEAKER (1.5cm)				
SP5	1-529-296-11	SPEAKER (20cm)(EXCEPT US, CND)				
SP5	1-825-151-11	SPEAKER (20cm)(US, CND)				
⚠T501	1-435-999-11	TRANSFORMER, POWER (US, CND)				
⚠T501	1-437-219-12	TRANSFORMER, POWER (E)				
⚠T501	1-437-246-11	TRANSFORMER, POWER (EXCEPT US, CND, E)				
⚠T601	1-435-993-11	TRANSFORMER, POWER (US, CND)				
⚠T601	1-435-994-11	TRANSFORMER, POWER(EXCEPT US, CND, E)				
⚠T601	1-435-995-11	TRANSFORMER, POWER (E)				

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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2003.09	New
1.1	2004.09	Addition of Ref. No. 58 COVER for SS-TS8 by change of service classification (SPM-04104)
1.2	2004.11	Addition of Ref. No. 7 and #11 (for SS-CT8) (SPM-04120)
1.3	2004.12	Change of Part No. of Ref. No. 6 (for SS-CT8) (SPM-04131)